Notebook, PN-00-10-17

This pocket notebook contains dated entries from May and October 1900. Some of the May dates have been changed to October. The pages consist of blank forms printed for use at the New Jersey and Pennsylvania Concentrating Works at Ogden, New Jersey. The entries, all of them by Edison, appear on the back of the forms. Many relate to battery experiments, including cadmium and other electrodes to be tried and various electrolyte solutions to test. Among the other tasks mentioned are the supervision of construction at the Edison Portland Cement Co. plant and consultations with Walter S. Mallory and other employees. Also included are lists of books to order and phonograph experiments to perform. The pages are unnumbered. Approximately 20 pages have been used.

Oct 17 1900 –

Try Ni pocket with CdO – reduce & plot curve use plenty Copper
Then discharge on 4/5 External res – note volts & amperes –
after dropping to 40 – reversed for 2 minutes with Current equal to discharging Current & note drop & Keep doing this until gone = Theory either bad Contact or paucity of Na anions internally –

~~Reduce~~
Make some black oxide of silver & reduce by Hydrogen also Carbonate or chloride silver & then mould a plate & See if Can oxidize by heat of not by Current if OK try it with Cd pocket as a depolarizer

Oct 17 1900 –

Press some Copper plates just as lightness they will handle. Then Ox by heat perhaps. The trouble is in the Copper (10) fall Volts + not in Cadmium – perhaps Cu_4O is one formed & it needs double the Copper we have –

Test this Thus

~~Pocket packed with Cadm~~

Cadmium plate full size labled moved also Copper plate which has been reduced + oxdized to Cu_2O – discharge till Volts go to 36 – Then have another Cu plate + put it in + see if Volts go up

Oct 17 1902

Try the Experiment with
Cad plate & Cu plate with
10% Soda & 10% Sulphate soda

ditto

Chloride Soda method see
if the pure alkali dont
prevent action of acid
on either plate & if so
resistance is forward —

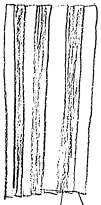
also phos soda & Oxalate —
would not the phos or Oxalate
precip all impurities in
alkaline solution
This might work with Zinc

Oct 17 1920

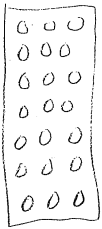
I noticed with the strip of Cd - that the oxide formed was apparently CdO may it not be possible that want of contact is the whole trouble with the Cd results if so we shall have to have thinner plates with Ni filament through them - or mixed Ni wires with Cd plated on & pressed in moved to solidify —

May 17 1900

Target Coated with Cd –



Ni .002 perforated



Cd plate .010 or .015
also perforated perforations
1/16
Then changed to grid

May 17 1900

Try plating on Magnesium with

straight strip with Copper same
size on both sides 1/4 inch apart
perforate magnesium plate well
with holes having strip cross —
see if can strip plating so
much on Edges round the Edges
of Copper & also Magnesium —
If that dont do it bore holes in
Copper also — If that dont do it
groove Copper in Centre —

If that fails put rubber on Edges
Magnesium — If that fails then

Oct 17 1900

~~Then try an [illegible] c.c.~~

~~as curve~~ # c

Make Magnesium Plate

to make lido edges

Try a dead clean polished magnesium plate (no oil)

~~Tuesday~~ Oct 19 1900

Dont fail to try mixture of spongy metal or peroxide of Barium — May have to use 20% NaOH saturated with BaOH — so peroxide wont dissolve — use Cd or Zinc to get vallogs of Zn use Zn NaOH — with saturated BaOH —

Try 2 lead pocket with ~~one bulb in contact~~ ~~back in NaOH sat~~ ~~with Of tind~~ ~~face~~ Lithage in both & NaOH saturated with lead oxide —

Oct 17 1900

Oxdize some of the spongy Copper than mould plate of dentwork - mix some NaOH slurry to dampen & reoxidize or slurry NH_3 - This will make plate more porous

Permanganate of Copper may be used & be a depolarizer or some other permanganate that's insoluble in Alkaline Sol & poked in grid or moulded —

Oct 17 1900 –

Chl Zinc Zinc plate –

Ca OH plate or in pocket,

— Carbon header –

Chlorine forms Hypochlorite

which is powerful

depolarizer – perhaps

Can get better grid –

Oct 18 =

Make some plates of reduced Copper & then put in H & heat again & try in battery

also Oxidize & reduce both by H & try =

Mount a plate of Cadmium & 2 plates Copper, which has been reduced by Current & recorded by Current — & test reservoir when 1/5 inch apart Cd in middle by having amperes try 10 ~~15~~ 20 & 25% NaOH KOH LiOH, also with 15%

of the best solution adding say 10% of Sulphate of the alkali – Chloride – Phosphate, Oxalate, Fluoride, Tungstate, Molybdate, Citrate, Tartrate, Borate etc —

Covering Electrodes —

Membranes — Ferrocyanide —

Copper — ditto Zinc —

Tannides —

Collodion — Shellac, Gutta percha — Syrian Asphalt, ~~Wax~~

Ceresine,

Vernet 3147 g —. Conducting very slightly. Changed only slightly

Collodion — (10) Conducting only slightly changed by gelatinization of the tannin —

Starch, Stearic acid, ferric hydroxide

Ammonium sulphide — Cupric sulphide K Iodide Fe Iodide

Inulin, Inulin and Mercuric chloride Iodine Tannin

glycogen Inulin, Dextrin Albumin

While not included because in
same sense as aluminum hydroxide
= How about K Soap or Rosin K Soap,
Ammonium or Na Soap —
Comments: Silicon dioxide —
agar agar —
Heavy Duty cells for transportation
can be considered —

Start in Monday next with Simpkins & go from 1 until 6 either on Convent see what's been ordered, what drawings done & what is to be done — Have Complete list made out Tuesday & rest Wednesday on a Book for my information

~~See about [illegible] from [illegible] & Stubbs~~

See Malloy — ~~about [illegible] about~~ Spoffs — Bar — ~~Pulley & Sash & S~~

~~See about Tenoffs [illegible]~~

Vose about Carpenter — ~~See about Vetter~~

Dangerfield about Home Phone

~~Simpkins and 465 ft Convey Rubber~~ ~~belt, Motor, Belt & Work ordered~~

~~Molon from Mine for X-ray [illegible]~~

~~S about [illegible] Heater~~

~~S also about [illegible] with all~~
~~Dange Motion Elev or Conv to Co~~
~~above~~

~~See Dan [illegible]~~
~~Sherwood — also S [illegible]~~
~~[illegible]~~
~~[illegible]~~

~~S about [illegible]~~
~~+ Tail — Stuffing box [illegible]~~
~~+ Outside [illegible]~~

also about Stand and Crowning
of idlers + H2 and T pulleys

D + S about Steam pipe

S about drawing Elevator
+ 3 H Rolls — Model screen

~~See New Model Hinge Hoist~~

~~Coal fried on Cave 4 Egypt~~

Hello Ceramic fried on Garden

~~Cal [illegible]~~

~~Sentences~~

~~Sabat arranging Xtra Consys~~

~~[illegible]~~

~~[illegible]~~

~~[illegible]~~

~~fresh [illegible]~~

~~Called in [illegible]~~

~~Storage Bail~~

Cyst Mulis Elementary

Thermochemistry 1885

~~precipitate HgO + Dry~~
~~then take best lampblack~~
~~mix HgO with lampblack~~
~~say 2/3 lampblack 1/3~~
~~HgO by bulk then~~
~~mix Coal tar~~

Make some Carbon plates
of lampblack with
smallest amount Coal tar
pitch + Coal tar say 25%
by wt + mould with
heavy pressure + bake
in muffle afterwards
bring up to high heat as
turnover slides.

Oct 24 1920

use these porous Carbon plate to absorb salts

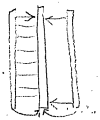
Try Concentrated Nitrate Hg. then dry + soak again until get all Can in — then dip in KOH to precip Hg_2O in Carbon use as depolarizer

also test all the metals this way as depolarizer

Roff does not remake
Cy from the Cy — ?
(Mendeleff.) —

Chromic hydroxide, easily
oxidized

[THIS BOOK WAS USED IN BOTH DIRECTIONS.
THE FOLLOWING PAGES WERE FILMED FROM
THE BACK END FORWARD.]



Tom Branch single
left no (3 H) 8 and children
work dust - want a
night watch -

Dick Roman Married
3 children - wks 13 ½